both a conceptual as well as empirical basis from which to conclude that aggregate LEC input price growth differs from economy-wide input price growth as long as prices of capital and labor services grow at different rates.⁵³

CCLTC

CCLTC asserts through the testimony of Dr. Lee L. Selwyn⁵⁴ that there is no need for any fundamental change in NRF's structure at this time; however, certain "mid-course corrections" should be studied. CCLTC submits that the onset of local competition comes as no surprise to the LECs, and is unlikely to engender significant or immediate operational changes for them upon its inception early next year. CCLTC puts at issue Pacific's and Dr. Christensen's inability to provide certain information and data underlying Christensen's productivity study, as well as the failure of the study to take into account the input price growth differential.

Dr. Selwyn testified that the "X" factor formula should include the post-divestiture LEC productivity growth plus a LEC input price differential plus an appropriate stretch factor, in order to reflect the efficiency incentives found in competitive

⁵³ Id. at 5-7.

⁵⁴ Exhibits 62 and 63.

markets and to ensure ratepayer protections. Dr. Selwyn declares that the "X" factor should be based properly upon "forward-looking" price and productivity trends, not long-term historical conditions.

He recommends that to the extent that forward-looking price and productivity forecasts may be difficult to obtain, only the post-divestiture time frame (1984-forward) -- the most recent period -- should be used in estimating productivity growth rates and input price differentials. Dr. Selwyn insists that use of the longer-term input price relationships advocated by Pacific, GTEC, and other LECs, puts forth a misleading indication of current conditions in the input factor markets and is fundamentally inconsistent with recent productivity studies commissioned by the LECs in connection with FCC and state price cap proceedings.

Dr. Selwyn urges the adoption of a post-divestiture informed input price differential in setting the productivity factor, as the FCC did in its 1994 price cap review. He presents a productivity factor, utilizing his formula, of 5.7%.

TATA

AT&T urges the Commission to retain the current price cap formula for services in Categories I and II. AT&T maintains that, by design, the price cap formula is to apply to a service

until the service faces effective competition. The evolution of telecommunications markets and the possibility that LECs' services would evolve from monopoly to effectively competitive was anticipated and built into the NRF. Through the testimony of Dr. John W. Mayo, AT&T asserts that certain steps should be taken to inform the Commission determination of when regulation should be replaced by market forces as the primary vehicle for allocating a firm's resources.

Dr. Mayo states that in order for a service to be found to be effectively competitive, or moved to Category III, the LEC should initially define the relevant market(s) within which the service is sold. Next, Dr. Mayo submits, the LEC should present evidence regarding its share of the market in which the service is sold; the height of barriers to entry and expansion, if any exist; and the nature of overall demand conditions in that market. Dr. Mayo insists that for those services that are effectively competitive, the LECs should enjoy essentially complete pricing flexibility. However, he admonishes, for those services that remain subject to significant monopoly power, the market cannot be relied upon to generate efficient prices. He

⁵⁵ Exhibit 67 at 7; AT&T Brief at 16-17.

⁵⁶ Exhibit 67 at 11.

advises the Commission to maintain controls on those services' prices.

AT&T asks the Commission to look closely at whether or not the LECs have attempted to alleviate any of the pressures they have identified through reclassification under the framework and, if not, why not? AT&T declares that the fact that regulatory and marketplace changes are now occurring, should not change the fundamental soundness of an approach that links the overall degree of regulatory flexibility to the degree to which the incumbent LECs face competition. Citing CCLTC witness Dr. Selwyn's testimony on the "appropriate" productivity factor, AT&T maintains that the productivity factor should be retained at levels no lower than 5%.

MCI

MCI states that the Commission should not eliminate the current inflation minus productivity factor, nor should it modify the formula to reduce the productivity factor unless it adopts a "True Price Caps" (TPC) regulatory regime for Pacific and GTEC.
MCI witness Dr. Nina W. Cornell describes TPC as the only price

cap format that "would be fully consistent with the move to open local exchange markets to entry and that would ensure that consumers get the maximum possible benefits from the changes that are occurring in telecommunications markets in California." 57

Dr. Cornell testified that the current framework, "a hybrid of rate of return regulation and price cap regulation," does not provide the best transition from monopoly to competitive telecommunications markets. She submits that the first part of the hybrid, in which the incumbent continues to be allowed to set and reset rates to attempt to recover a revenue requirement thwarts lower prices. Further, Dr. Cornell maintains that the existing framework incorporates excess costs into the prices dependent competitors pay for monopoly input functions, possibly creating anticompetitive pricing opportunities for the LECs and artificially high pricing floors.

Dr. Cornell recommends the adoption of the following five features of TPC at the same time or before the Commission eliminates the GDPPI minus "X":

 Setting the rates for all Pacific/GTEC monopoly input functions needed to provide retail services at their direct economic costs.

⁵⁷ Exhibit 24 at 3.

- Capping the rates for Pacific/GTEC's retail services that are not competitive at existing rates.
- Eliminating all earnings reviews and sharing requirements for Pacific/GTEC.
- Eliminating all price regulation of Pacific/GTEC's competitive functions and services.
- Eliminating periodic cost studies of existing Pacific/GTEC telecommunications functions and services after completion of Open Network Architecture Proceeding (OANAD or Rulemaking (R.) 93-04-003/ I.93-04-002). 58

MCI declares that its proposal is consistent with ongoing Commission efforts to remove competitive entry barriers, provides an efficient and pro-competitive approach to staged elimination of earnings regulation for the LECs and allows for significantly increased LEC regulatory flexibility.

CCTA

CCTA submits that the existing framework should not be changed as a general matter because it already anticipates the advent of competition, as well as prompting its own demise through the reclassification of services. CCTA argues that conceivably all LEC services could become fully competitive

⁵⁸ Id. at 5-6 and MCI Brief at 4.

someday. Moreover, under the current NRF, services could be moved from Categories I and II to Category III, and would be removed from those classifications' pricing restrictions. CCTA contends that, consequently, application of the price cap mechanism would cease in its entirety.

The association declares that the existing framework has not diminished the financial health of Pacific or GTEC. CCTA maintains that "but for the advent of competition and the scheduled triennial review of the NRF, Pacific would have no grounds in light of its earnings upon which to petition the commission for review or revision of the NRF framework." It characterizes the present productivity factor as reasonably set to provide Pacific and GTEC a fair opportunity to earn a return on their investment. CCTA asserts that Pacific's spinoff of its cellular telephone operations has had a greater negative impact on the LEC's earnings than the NRF has.

CCTA addresses the questions of how and when the price cap mechanism should be modified through the testimonies of Dr. Francis Collins and Dr. Frank Wolak. ODr. Collins contends that the transition from full regulatory supervision to decreased

⁵⁹ CCTA Brief at 4-5.

⁶⁰ Exhibits 54 and 55-56, respectively.

oversight in a competitive marketplace must address the definition, application, monitoring and enforcement of service quality standards.⁶¹ Dr. Wolak recommends a set of targets for reducing the barriers to new entrants participating in local exchange markets and urges the Commission to attach to these targets any regulatory relief it might determine to give the LECs.⁶²

TURN

TURN contends that GDPPI minus "X" in the price cap formula should not be eliminated. The inflation minus productivity factor should be modified only to the extent of ensuring the ratepayer protection of having the "X" factor include the effects of competitive market efficiencies. TURN declares that the spinoff of Telesis' Pactel and wireless subsidiaries has adversely affected Pacific. It argues that the Telesis spinoff decision bars the company from seeking changes to the productivity factor as a means of addressing any perceived financial stresses. TURN maintains that Pacific paints a "distortedly favorable pre-NRF financial condition; and a distortedly unfavorable post-NRF financial condition" and

⁶¹ Exhibit 54 at 6.

⁶² Exhibit 56 at 31-36.

"inappropriately links financial impacts to NRF that were unrelated to NRF." 63

TURN states that until ratepayers can enjoy the benefits of effective competition in all local markets and for all services, they should receive, as intended by the price cap formula, the efficiencies of marketplace competition. TURN notes that significant competition has not yet developed and will occur only slowly for residential ratepayers.

CTC-California64

CTC-California supports Pacific's and GTEC's position that the Commission should adjust LECs' price cap formula to account for the introduction of full competition in the local exchange market. CTC-California maintains that the price cap formula was intended to be "a regulatory surrogate for competition and to provide an incentive for NRF LECs to operate efficiently, as if they were operating in a competitive

⁶³ TURN Brief at 3.

Citizens Telecommunications Company of California Inc. D.95-03-017, as modified by D.95-04-034 and D.95-08-001, authorized Citizens Utilities Company of California (CUCC) to separate its telephone and water properties. Under the new structure, the telephone properties operate as CTC-California, a new separate corporate entity. The water properties continue to operate as CUCC.

marketplace."65 It argues that the rationale for the price cap formula disappears once competitors are allowed to enter the market and compete with LECs. CTC-California insists that while competition may not come immediately to all customers in all markets, LECs should not be required to show that they have lost some percentage of their customers before obtaining relief from regulation intended for a monopoly environment.66

DOD/FEA67

DOD/FEA declares that the inflation minus productivity portion of the price cap formula should not be eliminated as long as the LECs retain significant market power. DOD/FEA urges the adoption of a "X" factor which is based on the most recent study of nationwide telecommunications TFP growth, adjusted by an input price proxy which more accurately reflects telecommunications input prices and a 50 point stretch factor, as in the first triennial review decision.

⁶⁵ CTC-California Brief at 3.

⁶⁶ Id. at 4.

⁶⁷ U.S. Department of Defense and All Other Federal Executive Agencies.

⁶⁸ DOD/FEA Brief at 5.

"double hit" or "double counting" results from the carriers having to reduce prices for competitive services in the face of growing competition, and then also having to reduce overall prices in response to the price cap mechanism. The agencies submit that there is merit to the LECs' argument given that their present rate structures are not cost based, but the solution proposed is inappropriate. They encourage a revision of the procedures for distributing rate increases and decreases that result from the NRF mechanism. DOD/FEA proposes that surcharges be added to the prices of services which are underpriced and surcredits be subtracted from the prices of services which are overpriced. The agencies also recommend credits for competition driven rate decreases that the LECs file between NRF adjustments.⁶⁹

CMA

CWA urges the elimination of the productivity factor, commenting that the "mere presence of competitors sparks an incentive for productivity improvements" among the LEC employees since "the efficient competitor will just as directly threaten the security of our jobs as does the productivity factor."

⁶⁹ Id.

(CWA Comments at 3.) CWA contends that the productivity factor is fundamentally unfair to the LEC workers, and unnecessarily threatens their jobs. CWA further states that maintenance of the productivity factor impacts both quality of service and LEC ability to invest in infrastructure. Should the Commission decline to eliminate the "X" factor at this time, CWA asks the Commission to reduce it significantly and "set a date for the factor to implode on its own once local competition is in full swing." (Id. at 5.)

Discussion

The Proposed Decision recognizes that in the design of NRF, the Commission joined LEC regulatory flexibility for any particular service to the level of competition faced by that service. We crafted three categories to track the progress of a service from full monopoly (Category I), to the emergence of incipient competition (Category II) and finally, to the establishment of effective competition for the service (Category III). Each category grants different levels of pricing freedom. Specifically, services in Categories I and II are subject to

⁷⁰ See, 33 CPUC 2d 125 (1989).

[&]quot;Category II will include discretionary or partially competitive services for which the local exchange carrier retains significant (though perhaps declining) market power." Id.

"price caps" that limit their upper bounds to levels established at the outset of the framework. These bounds are subject to annual adjustment according to the price cap formula which permits rates to rise by the level of inflation, minus an offset to reflect the LECs' increase in productivity during the preceding year. 72

As a significant aspect of the NRF, the Commission granted LECs the authority to seek the transfer of a service from a more restrictive to a less restrictive Category, upon a showing that competition for that service has developed to the point where it meets the criteria for inclusion in the less restrictive category. We stated:

As the intraLATA market becomes increasingly competitive, we also expect to see eventual migration of services from Category I or II to Category II or III....Since we would want to review and evaluate market conditions to ensure that customers and/or the competitive market are not harmed by classification changes, Pacific or GTEC must make any such request through the application

The formula allows exogenous or "Z" factor increases or decreases to account for costs caused by elements outside the LECs' or the Commission's control.

process..."73

In this phase of the proceeding, Pacific and GTEC have chosen to broadly address the strength of competition across markets rather than discuss the specific effects of the current state of competition upon Category I or II services. The LECs contend that the Commission should change the operation of the formula concurrent with the opening of the local exchange market to competition.⁷⁴

The Proposed Decision stated that Pacific and GTEC provided the Commission with very little definitive evidence to show the impact of what they perceive as rapidly accelerating competition on the LECs. We disagree.

Part of the problem carriers face in showing the level of competition in the telecommunications industry is that the most relevant evidence does not yet exist. The LECs cannot be faulted for the inability to provide evidence on the state of competition in 1996 and beyond comparable to evidence on past events. The LECs do, however, present evidence in the form of expert testimony on prospective competition that is probative.

Dr. Robert Harris cites the announced business plans of Pacific's

⁷³ <u>Id.</u> at 127.

²⁴ Exhibit 29 at 1, 16 and Exhibit 35 at 2.

competitors and credibly explains their significance. Evidence shows growth in competition from IECs, CAPs, and cable television companies; a growth in competition from wireless voice and data services; as well as the particular vulnerability of LEC markets to entry targeted at lucrative geographical areas. This evidence is more than adequate to support taking actions to adjust the regulatory system to make it more compatible with current and imminent competition in the industry. The record is insufficient to eliminate Price Cap regulation at this time, but is adequate to change certain aspects of current NRF policies to conform with the changing market.

The LECs envision fierce competition in the local exchange market in the immediate future. They list the vast resources of AT&T, MCI, Sprint, TeleCommunications Group, Metropolitan Fiber Systems, Century Telecommunications, and Continental Cablevision: the large, well-funded and sophisticated competitors on the horizon. The companies

⁷⁵ Dr. Harris (for Pacific) 2 Tr. 323-25.

⁷⁶ Dr. Harris (for Pacific) Exh. 14, Att. 1, pp. 23-31.

⁷⁷ Id. at 32.

⁷⁸ Id. at 8.

Pacific Brief at 12; GTEC Brief at 8.

GTEC Brief at 9; Exhibit 27 at 14-15; Pacific Brief at 12-15.

highlight the threat posed by the IECs, competitive access providers (CAP), personal communication services (PCS), cable companies, and wireless providers. GTEC observes that more than 60 firms filed applications on September 1, 1995 for authority to provide local service throughout its present service areas. 61 However, most of the other parties dispute the immediacy of the rapid pace that Pacific and GTEC foresee. With the exception of CTC-California, CWA and the LECs, the other parties assert that competition in local exchange will develop over time. We note that all parties expect competition to increase. The dispute is only on the strength of competition in the immediate future.

Although all parties are unable to convince us of the veracity of any single projection of the level and speed of competition in the future, we take note that none of the parties disagree that competition will increase in light of the steps that the Commission is taking to meet its statutory obligation to open all California telecommunications markets by January 1, 1997. In fact, no party suggests that the level of competition will decrease or remain static. Parties disagree only on the state of competition in the future and the speed with which it will be introduced.

⁸¹ GTEC Brief at 9.

Much of the discussion in the Proposed Decision dealt with efforts of the parties to pinpoint the level of competition. Parties debated over various services as examples of what to expect when local competition begins on January 1, 1996. We find all the examples and the objections to them helpful but not definitive.

The evidence submitted on the evolution of the interLATA toll market and intraLATA toll market is helpful because it shows the effects of opening markets and the creation of a more competitive market. We do not believe that these circumstances enable us to use the events that occurred in those markets to determine what the exact level of competition will be when local markets are opened, but it will clearly be greater than it is today.

The discussion on competition today and on the state of competition in the future by Dr. Harris is most helpful. Although we agree with the Proposed Decision that we cannot completely rely upon Dr. Harris' report to allay all our concerns about the LECs transition from significant to declining market power, his testimony allays many concerns credibly. AT&T, CCLTC, and DRA describe Dr. Harris testimony as being general, speculative, and a miscellany of diverse statistics, anecdotes,

press releases, and newspaper reports, 82 these pieces of information, however, are the life blood of market intelligence and expert projections.

Although Dr. Harris' assessment of the future mirrors our own optimistic forecast of future market conditions in telecommunications, we agree with the Proposed Decision that it is not prudent to base today's policies as if all these predictions were certain to come true. Even so, there are parts of Dr. Harris' testimony that firmly support the LECs' contention that they today face rising competition in some of their Category II services.

Although the bulk of evidence submitted by the LECs on the pace and power of competition on Category II services relates to toll services, it nonetheless shows a reduced market share for Pacific Bell in post-NRF period. Citing a Quality Strategies, Usage Track Report commissioned by Pacific during the second quarter of 1995, Dr. Harris testified that Pacific currently carries only 56% of the California intraLATA business toll traffic⁶³ and a 6% share the California market for 800 services. Extra thermore, Pacific reports that competition from interexchange

⁸² AT&T Brief at 6.

⁸³ Exhibit 14 at 21.

^{84 &}lt;u>Id</u> at 22.

carriers (IXCs) has had a dramatic impact on Pacific Bell's share of 800 services. Pacific calculates that 800 services in California represent almost 9 billion minutes of use, and the company's share is 6%. AT&T questions the validity of Pacific's estimate saying the data from which Pacific's number arises is a compilation of intraLATA, interLATA, and even interstate, 800 traffic. We do not dismiss AT&T's objection in this regard; but agree with Pacific and take its loss of market share in the 800 service into consideration in assessing the competitive effects of an open market.

Similarly, Dr. Harris testifies that between 1993 and 1994, the competitor share of Hi Cap Services more than doubled to 38% in San Francisco and increased by a third to 39% in Los Angeles. 87 We conclude from this that our policy of opening these markets is working well.

Pacific and GTEC cite their declining market shares in intraLATA toll after the January 1 implementation of competition. Pacific reports a loss of approximately 6 percent as a result of 10XXX switched toll bypass. GTEC indicates a loss of 7.5

⁸⁵ Exhibit 14 at 22.

⁸⁶ AT&T Brief at 29.

BY Dr. Harris (for Pacific), Exh. 14 at 14.

⁸⁸ Exhibit 14 at 21, 2 RT 300, lines 2-13.

percent for the first six months of 1995.89 We agree with Pacific Bell and GTEC that their market losses are the results of competition in the intraLATA market; and we conclude that this negates in part the need to use a price cap formula that relies on a GDPPI minus "X" to control market power.

GTEC witness Professor Sappington testimony discusses the proper regulatory framework that we should adopt when competition is present. Although his testimony makes no attempt to characterize the present level of competition or the speed at which competition will emerge, Professor Sappington's testimony makes a useful distinction between closed and open markets. We note that California statutes require us to open all telecommunications markets by January 1, 1997 and we take the major step of opening local markets on January 1, 1996.

The Proposed Decision expressed uncertainty regarding the implications of the record on the declining intraLATA toll market share numbers as an indicator about the pace of competition in the market and the projected damage that the LECs might sustain. These numbers are the product of approximately

Exhibit 28 at 3; 3 RT 493, lines 14-24. DRA notes that GTEC's calculation does not account for misdialed calls and comments that given Pacific's level of misdialed calls GTEC's loss is probably comparable to Pacific's. (DRA Brief at 11.)

five months of data. The Proposed Decision noted that it is to be expected that when competition is introduced into a market served by a monopoly provider there will be a loss of market share by that provider. The Proposed Decision questioned if the evidentiary record provided enough information to determine if the LECs' intraLATA toll market share loss is extraordinary and unprecedented.

We do not share the Proposed Decision's uncertainty concerning the consequences of the LECs' intraLATA toll market share loss. Although the conclusion of what is extraordinary depends on which market one examines, if one looks at the most relevant market, that for intraLATA toll, it is clear that the market share loss in California is both extraordinary and unprecedented. GTEC's witness McCallion testified that in the first six months of 1995, GTEC had a market share loss of 7.5 percent of the total intraLATA toll market. In the Implementation Rate Design (IRD) decision, the Commission noted that "it took at least three years for GTEC to lose the cited levels of traffic in Texas and Florida." The cited levels were

⁹⁰ GTEC estimates that the ongoing level of revenue loss averages \$3.5 million per month from March through June or \$42 million on an annualized basis. (GTEC Brief at 6; Exhibit 51.)

⁹¹ McCallion, Ex. 28, p. 3.

⁹² D.94-09-065, mimeo at 164.

a 6.4% loss for the Florida market in three years after intraLATA competition was authorize, and a 5 percent loss for Texas where intraLATA competition has existed for 8 to 10 years. 93 Even though the LECs still retain over 90 percent of the total market and the level of market loss has precedent in the interLATA market, the speed of the loss in the intraLATA market -- a greater market share loss in 6 months than sustained in other jurisdictions over a much longer time period -- is both extraordinary and unprecedented.

The Proposed Decision would set a standard that would require the presence of "effective competition" before the GDPPI minus "X" price cap formula is removed. If "effective competition" as envisioned by the Proposed Decision existed, it would be difficult to justify regulation. We agree with the testimony of Dr. Schamalensee and Dr. Harris that as competition increases, changes in regulation are required.

"Effective competition" is not a prerequisite for modifying the price cap formula. The threshold question is whether competition has increased to such a point as to cause us

⁹³ D.94-09-065, mimeo at 163.

Proposed Decision, pp. 1, 35.

⁹⁵ Dr. Schmalensee (for Pacific) Exh. 2. Att. 1, p. 14.

⁹⁶ Dr. Schmalensee (for Pacific) Exh. 1, Att. 1, p. 3.

⁹⁷ Dr. Harris (for Pacific) Exh. 14, Att. 1, p. 1.

to reconsider the continued application of the price cap formula to Category I and Category II services. At this time, there is more than enough evidence to support modification of price cap regulation and suspension of the Price Cap formula. The fact that the LECs face more competition in the toll markets today and that once the remaining local markets are opened, the degree of competition will further increase, are strong indicators of the movement towards a more competitive market. Modification of price cap regulation through suspension of the price cap formula is necessary.

The actual impact of the suspension of the application of the GDPPI minus "X" formula is to equate the productivity factor "X" with the GDPPI inflation factor, which produces a net zero adjustment for each year that the suspension of the formula will remain in force. Our action in this case can be construed as a reduction of the 5% productivity currently in effect for Pacific Bell by an amount that will set it equal to the inflation factor. For this year, this would be equivalent to setting the "X" factor to 2.9%.

We will apply the suspension of the application of the price cap formula to GTEC as well. However, the applicability of the suspension to GTEC will begin with calendar year 1997, instead of 1996 since a previously adopted productivity factor of

4.6% for 1996 will be applicable pursuant to D.93-09-038. After 1997 the suspension of the price cap formula will remain in effect for GTEC as for Pacific until 1998 at which time the Commission will consider the Third Triennial NRF Review.

In D.93-09-038 we adopted a settlement agreed to by GTEC and other parties to apply productivity factors of 4.5% for 1993, 5.0% for 1994, 4.8% for 1995, and 4.6% for 1996 to GTEC. In this decision we will not change the stipulated productivity factor for GTEC for calendar year 1996. However, we note that if GTEC wishes to request suspension of the price cap formula for 1996, we will consider a petition for modification of D.93-09-038 in the light of the modification of the NRF mechanism and suspension of the formula we are considering for GTEC and Pacific Bell in this proceeding.

The Proposed Decision concludes that at the present time, it is difficult to know with certainty how competitive the industry will become. The parties predict a fairly wide range of possibilities. The forecasts range from suggesting hardly any change from the status quo to statements that there will be competition in virtually all services.

⁹⁸ Application of GTEC for Review of the Operations of the Incentive Based Regulatory Framework Adopted in Decision 89-10-031, D.93-09-038, Ordering Paragraph 6.

The truth is likely to be between the two extremes. Although there may be uncertainty regarding the breadth and depth of competition in the future, we are certain that the trend is towards increasing competition. We expect that competitive actions will arrive in bursts, will appear in various geographic areas before others, and will target specific services. In other words, there will be dynamic change in the industry. We expect the industry to be in a period of flux for some time as the environment becomes more and more competitive. Therefore, the regulatory approach we will take is both to respond to new developments and to prepare for the long term. We are confident that our actions will contribute to moving the industry from a monopoly environment to a competitive environment while reflecting the reality of emerging competitors. Our regulatory framework must reflect this change.

We will suspend the Price Cap Formula until a final decision is issued in the next triennial review, or until further order, and set the price caps for Category I and Category II services at currently effective levels to protect consumers as competition further emerges. These price caps should remain in place until a future NRF review determines how regulation should respond to the prevailing market conditions. During this period, to last for three years, Pacific and GTEC shall have a freeze on